[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-0172; Project Identifier AD-2023-00265-E; Amendment 39-22355; AD 2023-04-08]

RIN 2120-AA64

Airworthiness Directives; Continental Aerospace Technologies, Inc. Reciprocating Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Continental Aerospace Technologies, Inc. (Continental) GTSIO-520-C, -D, -H, -K, -L, -M, -N, and -S; IO-360-A, -AB, -AF, -C, -CB, -D, -DB, -E, -ES, -G, -GB, -H, -HB, -J, -JB, -K, and -KB; IO-470-D, -E, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -T, -U, -V, and -VO; IO-520-A, -B, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, and -MB; IO-550-A, -B, -C, -D, -E, -F, -G, -L, -N, -P, and -R; LTSIO-360-E, -EB, -KB, and -RB; LTSIO-520-AE; O-470-A, -B, -E, -G, -H, -J, -K, -L, -M, -N, -R, -S, -T, and -U; TSIO-360-A, -AB, -B, -BB, -C, -CB, -D, -DB, -E, -EB, -G, -GB, -H, -HB, -JB, -KB, -LB, -MB, -RB, and -SB; TSIO-520-A, -AE, -AF, -B, -BB, -BE, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -NB, -P, -R, -T, -UB, -VB, and -WB; TSIO-550-A, -B, -C, -E, -G, -K, and -N; TSIOF-550-K; and TSIOL-550-A, -B, and -C model reciprocating engines. This AD was prompted by a report of a quality escape involving improper installation of counterweight retaining rings in the engine crankshaft counterweight groove during manufacture. This AD requires inspection of the crankshaft assembly for proper installation of the counterweight retaining rings in the counterweight groove, and corrective actions if improper installation is found. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to regulations.gov. Follow the instructions for submitting comments.

• Fax: (202) 493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at regulations.gov by searching for and locating Docket No. FAA-2023-0172; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

• For Continental service information identified in this final rule, contact Continental Aerospace Technologies, Inc., 2039 South Broad Street, Mobile AL, 36615; phone: (251) 308-9100; email: MSB23Support@continental.aero; website: continental.aero.

• You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at regulations.gov by searching for and locating Docket No. FAA-2023-0172.

FOR FURTHER INFORMATION CONTACT: Nicholas Reid, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5650; email: nicholas.j.reid@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA received a report of a quality escape involving improper installation and inspection of counterweight retaining rings in the engine crankshaft counterweight groove during manufacture. The FAA has also received reports of two ground engine seizures and one in-flight loss of engine oil pressure due to improper installation of the counterweight retaining rings during manufacture. The counterweight retaining rings are part of the engine crankshaft counterweight assembly retention system. Loosening of a counterweight retaining ring may result in the loss of retention of the counterweight. This condition, if not addressed, could result in loss of engine oil pressure, catastrophic engine damage, and possible engine seizure. The FAA is issuing this AD to address the unsafe condition on these products.

FAA's Determination

The FAA is issuing this AD because the agency has determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed Continental Mandatory Service Bulletin MSB23-01, Revision A, dated February 16, 2023 (MSB23-01A). This service information specifies procedures for inspection of the crankshaft assembly for improper installation of the counterweight retaining rings in the counterweight, and corrective actions if improper installation is found. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

AD Requirements

This AD requires accomplishing the actions specified in paragraph III, Action Required, of MSB23-01A, except as discussed in "Exception to the Service Information."

Differences Between this AD and the Service Information

The service information specifies compliance for engines with less than 200 operating hours, while this AD requires compliance for all affected engines, regardless of the operating hours. The FAA has determined that this unsafe condition, of improperly installed counterweight retaining rings, is likely to exist on affected engines. While the manufacturer's service information excludes engines accumulating 200 or more operating hours, the FAA has not, as of yet, been provided with adequate data to support that exclusion. In the event the FAA receives data to support the exclusion of engines with more than 200 operating hours, or make other changes to this AD, the FAA may consider further rulemaking.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for "good cause," finds that those procedures are "impracticable, unnecessary, or contrary to the public interest." Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies foregoing notice and comment prior to adoption of this rule. The manufacturer discovered an assembly error for the affected engines. It is possible that one or more counterweight retaining rings were not properly seated in the crankshaft counterweight groove of the engine. This condition could allow the counterweight to depart from the crankshaft during engine operation. Because of the urgency of the unsafe condition, this AD requires inspection of any affected crankshaft assembly before further flight. The manufacturing quality escape has resulted in ground engine seizures and an in-flight loss of engine oil pressure, which could lead to catastrophic engine damage, engine seizure, and consequent loss of the aircraft. Due to the low operational hours on the known crankshaft assembly failures, the short-term risk

to the fleet is such that expeditious action must be taken and therefore this AD is effective upon publication. The FAA is issuing this AD to address the unsafe condition on these products. As the affected crankshaft assembly must be inspected before further flight after the effective date of this AD, the compliance time for the required actions is shorter than the time necessary to allow for public comment and for the FAA to publish a final rule. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forego notice and comment.

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2023-0172; Project Identifier AD-2023-00265-E" at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of

your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Nicholas Reid, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

Costs of Compliance

The manufacturer has notified the FAA that 2,176 crankshaft assemblies are subject to the unsafe condition. The FAA estimates that of those 2,176 crankshaft assemblies, 1,632 are installed on aircraft of U.S. registry. The FAA estimates that 544 engines will need to remove one cylinder, 544 engines will need to remove two cylinders, and 544 engines will need to remove three cylinders for compliance with this AD.

The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Remove one cylinder	10 work-hours X $85 per hour = $850	$0	$850	$462,400
Remove two cylinders	18 work-hours X $85 per hour = $1,530	$0	$1,530	$832,320
Remove three cylinders	22 work-hours X $85 per hour = $1,870	$0	$1,870	$1,017,280
Inspect crankshaft counterweight retaining rings	0.75 work-hours X $85 per hour = $64	$0	$64	$104,448
Reposition, repeat, or remove/install counterweight assemblies	1.5 work-hours X $85 per hour = $127.50	$0	$127.50	$201,080

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866, and

(2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2023-04-08 Continental Aerospace Technologies, Inc.: Amendment 39-22355; Docket No. FAA-2023-0172; Project Identifier AD-2023-00265-E.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

Continental Aerospace Technologies, Inc. (Continental) GTSIO-520-C, -D, -H, -K, -L, -M, -N, and -S; IO-360-A, -AB, -AF, -C, -CB, -D, -DB, -E, -ES, -G, -GB, -H, -HB, -J, -JB, -K, and -KB; IO-470-D, -E, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -T, -U, -V, and -VO; IO-520-A, -B, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, and -MB; IO-550-

A, -B, -C, -D, -E, -F, -G, -L, -N, -P, and -R; LTSIO-360-E, -EB, -KB, and -RB; LTSIO-520-AE; O-470-A, -B, -E, -G, -H, -J, -K, -L, -M, -N, -R, -S, -T, and -U; TSIO-360-A, -AB, -B, -BB, -C, -CB, -D, -DB, -E, -EB, -G, -GB, -H, -HB, -JB, -KB, -LB, -MB, -RB, and -SB; TSIO-520-A, -AE, -AF, -B, -BB, -BE, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -NB, -P, -R, -T, -UB, -VB, and -WB; TSIO-550-A, -B, -C, -E, -G, -K, and -N; TSIOF-550-K; and TSIOL-550-A, -B, and -C model reciprocating engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 8520, Reciprocating Engine Power Section.

(e) Unsafe Condition

This AD was prompted by a report of a quality escape involving improper installation of counterweight retaining rings in the counterweight groove during manufacture. The FAA is issuing this AD to prevent departure of counterweight and retaining hardware from the crankshaft assembly. The unsafe condition, if not addressed, could result in loss of engine oil pressure, catastrophic engine damage, engine seizure, and consequent loss of the aircraft.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Action

For affected engines with an installed crankshaft assembly identified in paragraphs (g)(1) or (2) of this AD, before further flight, do the actions identified in, and in accordance with paragraph III, Action Required, of Continental Mandatory Service Bulletin MSB23-01, Revision A, dated February 16, 2023 (MSB23-01A).

(1) Crankshaft assembly having a crankshaft serial number listed in Appendix 1 of MSB23-01A; or

(2) Crankshaft assembly that was repaired or installed on or after June 1, 2021, having a part number and crankshaft serial number listed in Appendix 2 of MSB23-01A.

(h) Exception to the Service Information

Where paragraph III. 1. a. of MSB23-01A specifies actions for spare crankshaft assemblies, this AD does not require those actions.

(i) Parts Installation Prohibition

After the effective date of this AD, do not install on any engine a crankshaft assembly having a crankshaft serial number identified in Appendix 1 or Appendix 2 of MSB23-01A, unless the actions required by paragraph (g) of this AD have first been accomplished for that crankshaft assembly.

(j) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Continental Mandatory Service Bulletin MSB23-01, dated February 13, 2023.

(k) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to permit a one-time, non-revenue ferry flight to operate the aircraft to a location where the maintenance actions can be performed, provided that:

(1) The engine oil filter pleats or screen are first inspected and there is no evidence of metal contamination; or

(2) An oil change has been done within the previous 5 flight hours, and there was no evidence of metal contamination in the oil filter pleats or screen.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (m) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(m) Related Information

For more information about this AD, contact Nicholas Reid, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5650; email: nicholas.j.reid@faa.gov.

(n) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Continental Aerospace Technologies, Inc. Mandatory Service Bulletin MSB23-01, Revision A, dated February 16, 2023.

(ii) Reserved.

(3) For Continental service information identified in this AD, contact Continental Aerospace Technologies, Inc., 2039 South Broad Street, Mobile, AL 36615; phone: (251) 308-9100; email: MSB23Support@continental.aero; website: continental.aero.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on February 16, 2023.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2023-03796 Filed: 2/17/2023 4:15 pm; Publication Date: 2/23/2023]